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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/349,211 07/02/99 YOSHIDA

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MM91/0212
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WASHINGTON DC 20005

EXAMINER

DEBERADINIS, R

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 02/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/349,211

Applicant(s)
TATSUYA YOSHIDA et al.

Examiner
ROBERT L. DEBERADINIS

Group Art Unit
2836



☒ Responsive to communication(s) filed on Jul 2, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-25 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-25 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3,6

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The preliminary amendment and the substitution specification submitted on 8/25/1999 have been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by NAGASHIMA 5,994,790.

NAGASHIMA discloses a power supply apparatus for a vehicle, comprising:

an electric power line (200) comprising a plurality of segments wired in an interior of a vehicle from a battery (52), for supplying power to various kinds of loads of said vehicle;

a plurality of short sensors

(58a-58x) for detecting a short circuit in at least one of said plurality of segments of said electric power lines; and

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a control circuit (60) for specifying a short circuit segment of said electric power line in accordance with a short detection condition of said plurality of short sensors.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-5, 7-9^{are} is rejected under 35 U.S.C. 103(a) as being unpatentable over NAGASHIMA 5,994,790.

Regarding claim 2.

NAGASHIMA discloses all the elements of claim 1.

NAGASHIMA is silent as to having a connector for connecting said electric power line segments to each other arranged between respective short sensors.

The use of connectors is well known in the art it would have been obvious to one having ordinary skill in the art at the time of this invention to use connectors to connect the line segments via a connector to provide easy assembly and maintenance of the power control system.

Regarding claims 3, 4, 5, 7, 8, 9.

NAGASHIMA discloses the limitations of the above claims except for providing fuses.

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. The use of fuses is well known in the art, for example, homes are wired wherein there exists a main breaker and from the main breaker individual circuit breakers are wire in series with the main breaker to limit the current in the individual circuits. It would have been obvious to one having ordinary skill in the art at the time of this invention to add:

a first fuse from the battery for supplying power to a plurality of loads of said vehicle;

a second power supply circuit wired in said interior of said vehicle through a second fuse from the battery, for supplying power to a control circuit of a control apparatus for controlling said load; to limit the maximum current that can flow in a cable. The mere placement of fuses in a circuit is not consider a novel step in the design of a system.

Regarding claim 10.

NAGASHIMA discloses a power supply apparatus for a vehicle as claimed. The reference is silent as to the sizing of the cables that are used to distribute the power. The sizing of cables dependent on the load supplying requirements is well known in the design of a power distribution systems. It would have been obvious to one skilled in the art at the time of this invention to select different size cables which were dependent on the current carrying requirement of the load the cable was supplying to design the smallest size cable to conserve space.

6. Claims 6,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

NAGASHIMA in view of YOSHIDA 6,157,091.

NAGASHIMA discloses elements of a power distribution system controlled by a microprocessor.

NAGASHIMA does not disclose a communication system. YOSHIDA discloses a communication

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system (refer to the abstract) whereby the electric power to the electric loads are controlled by a multiplexed communication system. It would have been obvious to one having ordinary skill in the art at the time of this invention to provide a power distribution system having a central control such as the micro processor disclosed in NAGASHIMA controlling satellite power control devises as disclosed by YOSHIDA and provide a communication system as disclosed by YOSHIDA to provide the control interface to the different satellite control devises.

✓ Regarding claims 12-25.


Claims 12-25 deals with the arrangement of elements and the placement of fuses in a vehicle electrical system. The mere rearrangement of elements and the placement of fuses is not consider to contain a novel step in the design of a system.

Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (703) 306-5857. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Josie Ballato, can be reached on (703) 308-0269. The fax phone number for this Group is (703) 305-7724.

RLD

FEBRUARY 6, 2001


Josie Ballato
Supervisory Patent Examiner
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2/9/01